ABSTRACT OF THE DISCLOSURE

A field sequential liquid crystal display device comprises a liquid crystal panel having an upper substrate, a lower substrate and a liquid crystal layer disposed therebetween, a back light disposed under the liquid crystal panel for irradiating a light to the liquid crystal panel and having 3 different light sources Red, Green and Blue sequentially driven; and an image signal processor controlling a lighting speed of each of the light sources Red, Green and Blue.

A method of color image display for a field sequential liquid crystal display device including an image signal processor, comprises steps of dividing a frame into four sub-frames having a period of one-fourth of one frame period, driving each of light sources Red, Green and Blue sequentially at a first, a second and a third sub-frame, driving a light source combination with three or fewer colors of Red, Green and Blue at a fourth sub-frame, classifying each component R, G and B of a color image input signal using a gray level having 256 levels, deciding a maximum luminance value of the field sequential liquid crystal display device using the gray level, obtaining an average luminance value of each of component R, G and B from the image input signal, turning on one of light sources Red, Green and Blue having an average luminance value greater than the maximum luminance value at the fourth sub-frame, and converting the input luminance value of component R, G and B and an input luminance value of the fourth sub-frame using the image signal processor.

Additionally, the method provides a time interval between driving sections of a previous light source and a next light source.